

**US Amazon Appstore - Consumer Q1-13**

Program Summary

April 23, 2013

**amazon benchmarking**

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**Purpose**

This program compared the user experience of the **Amazon Appstore** versus competitors. Our study focused primarily on the app store experience for **Amazon Appstore** on the Kindle Fire HD 7" (referred to as "Kindle Fire"), **Apple App Store** on the iPad Mini, and **Google Play** on the Nexus 7. Where appropriate, we also provided high-level analysis of the experience on the web, on phones (e.g., Android and iPhone), **Microsoft's** Windows Store on the Surface, and **Facebook** App Center, with deeper analysis when deemed useful.

Platform Service	Web/ Desktop	Kindle Fire HD 7"	Nexus 7	iPad	Android Phone	iPhone	Surface	Windows Phone
Amazon Appstore	✓	✓			✓			
Google Play	✓		✓		✓			
Apple App Store	✓			✓		✓		
Windows Store	✓						✓	✓

**Findings Summary**

The following section is a high-level summary of our observations based on the time (Jan-Mar 2013) we spent using the various app stores and platforms included in this program.

Amazon's app selection trailed both Apple and Google, with Amazon carrying only 61% of the top 200 paid and top 200 free apps from Google Play. Where Amazon did not have selection gaps, Amazon's app versions were routinely behind versions offered on Google Play. Amazon's Appstore lacked any merchandised experience or editorial viewpoint beyond a single node (games). All other nodes were simply standard product lists with sorting/filtering options. We also noted that Amazon lacked web-based app management functionality, such as the ability to install apps to a specific device, update, or remove apps via the web. Google provided these features, allowing us to manage all of our apps and devices from the Google Play website. Amazon Appstore provided some innovative and useful features such as: Free App of the Day, Test Drive, and Whispersync; however, Test Drive and Whispersync were not yet widely implemented.

The following table shows the high-level summary of our findings by section. References coordinate to the relevant recommendations and questions in the Q&A section.

Amazon Defects > or vs. Competitors >	None or Beat	Some or Matched	Critical or Lost	Comment
Selection			✓	<b>Amazon</b> carried 61% of the top 200 paid and top 200 free apps on <b>Google</b> Play. 25% of the missing apps were missing selection from developers who had other apps on the <b>Amazon</b> Appstore. <b>Amazon</b> received app updates later than <b>Google</b> . <b>Amazon</b> had outdated versions of some <b>Amazon</b> subsidiary apps compared to <b>Google</b> . <b>Amazon</b> was missing many key apps for non-Kindle Android devices due to "Kindle Tablet Edition" versions being offered exclusively. [R2 and Q1]
Selection Quality		✓		We found low-quality apps in all marketplaces; although <b>Amazon</b> and <b>Google</b> appeared to have a greater number of such apps compared to <b>Apple</b> . Kindle versions of some racing games appeared to have lower-quality graphics than <b>Google</b> or <b>Apple</b> versions. [Q1]
Merchandising			✓	<b>Apple</b> and <b>Google's</b> merchandised content had a more curated and editorial feel (e.g., consistent merchandising across all categories, more relevant recommendations, editors picks). On Kindle, <b>Amazon's</b> only merchandised category was games. <b>Amazon</b> did not provide any editorial content. [R3]
Search and Browse	✓			<b>Amazon</b> had the most robust search features and handled misspellings well across all platforms. <b>Google</b> and <b>Apple</b> both provided filters on age/maturity rating, and the ability to purchase from search; <b>Amazon</b> lacked these features. <b>Amazon</b> did not display any content for null result searches on Kindle. <b>Amazon</b> used categories on Kindle that were better suited as refinements (e.g., Test Drive). [Q2]

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Amazon Defects > or vs. Competitors >	None or Beat	Some or Matched	Critical or Lost	Comment
Recommendations		✓		<b>Amazon</b> provided limited personalized recommendations. <b>Google's</b> recommendations were based on more than purchase and browsing history and included the reasons behind each recommendation with a mechanism to mark a recommendation as "not interested." [Q2]
Wish List		✓		No app store offered a wish list that was shoppable by other users. <b>Amazon's</b> "Save for Later" feature did not sync across devices; <b>Google's</b> did. [Q6]
Detail Page			✓	<b>Google</b> and <b>Apple</b> provided more full and consistent app data including: complete version history ( <b>Apple</b> ), install count and trend ( <b>Google</b> ), and social gaming indication ( <b>Apple</b> ). <b>Amazon</b> Appstore Kindle detail pages did not behave like other on-Kindle stores. [Q8]
Customer Ratings and Reviews		✓		<b>Apple</b> and <b>Google</b> both provided the ability to filter reviews based on device and/or current version. <b>Google</b> showed customer device in reviews; <b>Amazon</b> did not provide this functionality. On-device <b>Amazon</b> Appstore did not allow for filtering of customer reviews by stars, while other Kindle stores (MP3, etc.) and the website did. [Q4]
Purchase Experience			✓	<b>Google</b> Play allowed for targeted delivery of purchased apps to specific devices that would download and install the apps immediately. <b>Apple</b> allowed us to turn on a setting that would automatically download and install any new apps purchased on a given account. Apps purchased from <b>Amazon's</b> website required manual syncing or waiting (up to a few hours) to download and install on our Kindle. [R1]
Gifting			✓	<b>Apple</b> allowed gifting of specific apps and for recurring allowance to a specified iTunes account. Despite providing ability to gift digital music and books, <b>Amazon</b> had no ability to gift apps. [Q6]
Social			✓	<b>Amazon</b> had limited sharing/social capabilities compared to competitors. [Q6]
App Management			✓	<b>Google</b> provided the ability to update, remove, and install from the cloud to a specific device from the web. <b>Google</b> displayed the release notes for updates on devices and the web in consistent locations. <b>Apple</b> included release notes for current update and all previous updates. <b>Amazon</b> did not surface release notes on devices and had the most steps to locate app updates. [R1 and Q7]
Parental Controls		✓		<b>Amazon</b> Appstore's parental controls were on-par with competitors.
Returns/Refunds			✓	<b>Google</b> offered a 15-minute return window that allowed for a refund without engaging customer service. All competitors, including <b>Amazon</b> , provided refunds despite policies stating otherwise. [Q8]

## Findings By Section

All observations can be found in the "►**Observations**" section below each section/chart. Observations that have a related question or recommendation are denoted with the recommendation/question number [R/Q#] to the right of the observation.

### I. Selection

We performed analysis of top downloaded apps from **Google** Play compared to **Amazon's** selection. We installed a set of 53 common popular apps on our Kindle Fire (**Amazon**) and our Nexus 7 (**Google**) to monitor app version and update frequency. We disabled auto-updates and checked for app updates daily. We found that **Amazon** lacked many key apps and had outdated versions of apps and received app updated later compared to **Google** Play. We also noted that a number of apps purchased from **Amazon** could only be installed on our Kindle Fire and not on any of our other Android devices.

#### ►**Observations:**

- 1) Of the 53 tracked common apps, 21 had newer versions available on **Google** Play at the point of install. Over the duration of the study, 43 out of 53 apps had received at least one update on **Google** Play before the update was available on **Amazon**. 21 of these apps remained behind at the end of our study. **Amazon's** version of Facebook was out of date for 75 days, missing three interim updates. The six-day delay in publishing a recent Minecraft update broke multi-player functionality for users of versions obtained from **Amazon**. [R2 and Q1]

- 2) We found **Amazon** subsidiary apps on **Amazon** Appstore that were out of date compared to **Google** Play. [R2]

	ASIN	Amazon Appstore	Google Play
Airport Mania 2: Wild Trips	B005FNNIAG	1.15	1.18
Airport Mania 2: Wild Trips HD	B00683JNUQ	1.19	1.20
Air Patriots	B008KE3960	1.04	1.06
Wag.com	B00AOAI2NI	1.0.5	1.0.6
Zappos	B004VA3X7M	2.6.0	2.8.0

*App versions as of January 9, 2013*

- 3) We analyzed recent Distimo (an app analytics service) app data for top free and paid apps on **Google** Play<sup>1</sup> and found that **Amazon** carried only 61% of the top 200 free and top 200 paid apps. For the 157 missing apps, 43 were from developers for which Amazon had other titles. [R2]
- 4) From the Distimo data above, **Amazon** was missing key apps from developers for whom we did not have any offers. These apps included all apps from Google as well as Instagram, WhatsApp Messenger, Groupon, Firefox, and PayPal. We also noted the omission of time-sensitive sporting events apps, namely, The Masters and NCAA March Madness Live. [Q1]
- 5) Approximately 3,500 apps in the **Amazon** Appstore were offered as “Kindle Tablet Edition” exclusively.<sup>2</sup> Many of these apps did not have a non-Kindle Fire version available on the **Amazon** Appstore. Despite website detail page messaging showing “Available instantly for your Android device,” these apps were only available on Kindle Fire. If we wanted these same apps on our other Android devices, we would need to buy the apps from **Google** Play. Apps purchased on **Google** Play could be installed on any Android device (excluding Kindle Fire). [Q1]

### Quality

While we did not perform in-depth cataloging and comparisons of app features and functionality on an app-by-app basis, we did perform comparisons of **Google** and **Amazon** versions of a select number of apps. Over the course of the study, we found what we would consider low-quality apps in all marketplaces, although **Amazon** and **Google** appeared to have a greater number of such apps compared to **Apple**. **Apple** appears to pre-screen apps for quality.<sup>3</sup> **Google** appears to be working to reduce the volume of low-quality apps as it was recently reported that they purged 60k apps from their marketplace.<sup>4</sup>

### ► Observations:

- 6) We found what we considered to be many low-quality apps offered on **Amazon**, many of which were paid apps. Examples included various photo gallery apps (both celebrity and “sexy girls”), apps that simply open a webpage of an eCommerce site or a list of links (“ioffer Market Place” (B006YCODU6), “Pizza coupons pizza delivery” (B004Y0RDDE)), and apps that appear to be knockoffs of popular apps or are using variations of popular app names (“temple runner” (B008X9TOPQ), “need 4 speed” (B00AY2YI66), “Facebook Home” (B00BG7PMQ8)). We found many of these apps by analyzing customer review data rolled up at a developer level (see full study document). [Q1]
- 7) For popular racing games, we found instances of games with lower-quality graphics on Kindle vs. Play or iOS, specifically related to reflections, surface details, and rendering details on horizons. We also noted a game (Riptide GP) that installed with a lower graphics setting on our Kindle Fire HD than on our Galaxy Tab 7 (even though both were installed from **Amazon** Appstore). [Q1]

## II. Discovery

We evaluated the various discovery methods across app marketplaces both from the web and on-device. We included search, browse, merchandised/editorial content, and recommendations. We found **Apple**’s merchandising to be consistent across devices and across all categories in the **Apple** App Store, while **Amazon** had limited merchandised or editorial content.

### Merchandising

**Apple** had merchandised landing pages for all 20 top-level categories, **Google** had merchandised landing pages for nine of 27 categories, while **Amazon** only had one merchandised category landing page.

<sup>1</sup> <http://www.distimo.com/leaderboards/google-play-store/united-states>

<sup>2</sup> [http://tiny/11jsgrbal/kindle\\_tablet\\_edition](http://tiny/11jsgrbal/kindle_tablet_edition)

<sup>3</sup> <https://developer.apple.com/appstore/guidelines.html>

<sup>4</sup> <http://techcrunch.com/2013/04/08/nearly-60k-low-quality-apps-booted-from-google-play-store-in-february-points-to-increased-spam-fighting/>

**►Observations:**

- 8) Each of **Apple's** 20 top-level categories had its own merchandised landing page with a highly-curated feel consisting of both app collections and single-app highlights. **Apple** also cross-merchandised magazines within a given category, for example, the Health & Fitness landing page included a widget for "Outdoor Adventure Magazines". [R3]
- 9) **Google** had merchandised landing pages for nine of 27 categories with highly-curated editorial features. [R3]
- 10) For **Amazon**, the only category with a merchandised landing page was the Games category. All others simply landed us in a browse node. On Kindle, selecting "Games" from Apps >> Store >> All Categories landed us in a non-merchandised browse node. [R3]

**Search and Browse**

We compared various aspects of the search and browse experience across devices and websites. **Amazon** generally had a better search experience than **Apple** or **Google**; however, there were opportunities for improvement in search, such as null search result handling and auto-complete to detail page functionality. We also found inconsistencies in Amazon's browse and refinement usage.

**►Observations:**

- 11) **Google's** search auto-complete surfaced a direct link to the detail page of a matched result. **Amazon's** did not. [Q2]
- 12) **Amazon** did not provide the ability to purchase from search or browse. **Apple** supported this from all platforms while **Google** offered this feature on their website. [Q2]
- 13) **Amazon** lacked filtering by age or maturity rating, while **Google** and **Apple** both provided this. [Q2]
- 14) On the Kindle Fire, **Amazon** used attributes that were more suited for refinements as categories/nodes within Games, including: Everyone, Everyone 10+, GameCircle, Gamepad Enabled, and Test Drive. [Q2]
- 15) GameCircle games on the **Amazon** website were populated (423 games) in a custom node with no sorting or refinement options. On the Fire, GameCircle games were populated in a single category as opposed to a refinement. [Q2]
- 16) On both the Kindle Fire and the website, **Amazon** Appstore "New Releases" refinement contained a "coming soon" option which was entirely populated with apps that were currently available.<sup>5</sup> There were no apps that were coming soon. [Q2]
- 17) **Amazon** did not provide any content for null result searches on devices, while we did on the website. [Q2]
- 18) **Amazon** Appstore on Kindle Fire contained nodes for Ringtones and Browsers. Both of these nodes appeared to be unnecessary as the Kindle does not have a phone, and there are no alternative browsers available. [Q2]

**Personalized Recommendations**

We evaluated the use of personalized recommendations across services, specifically the location and messaging. We found that **Google** used many different inputs to generate recommendations for us (and messaged those inputs in their recommendations). **Amazon** appeared to only utilize the standard amazon.com recommendations on the website and Kindle carousel.

**►Observations:**

- 19) **Amazon** did not provide personalized recommendations beyond the standard widgets on the amazon.com website, the recommendation pane below the carousel on the Kindle home screen, and a widget on the Kindle Appstore. [Q2]
- 20) On-device, **Amazon** did not provide a mechanism to mark a recommendation as uninterested. This option existed on the amazon.com website and **Google** Play also offered this ability. [Q2]
- 21) **Amazon** did not provide context for specific recommendations (outside of the standard recommendations on the website (i.e., "Why recommended?" and "Fix this recommendation")). **Google** displayed a reason for each recommendation (e.g., "Popular with WatchESPN users", "Popular in your area", "Optimized for your device"). [Q2]
- 22) **Google** also utilized social networks for recommendations ("+1'd by your friends"). [Q2]

**Wish List / Save for Later**

We evaluated the wish list / save for later functionality across device and websites. No marketplace had a functional wish list in the sense of allowing us to add apps and have others discover and purchase our wished-for apps.

**►Observations:**

- 23) **Amazon** allowed us to add apps to our wish list, but while it was possible for others to see apps on our wish lists, it was not possible for them to purchase apps as gifts. [Q6]
- 24) **Amazon** provided a "Save for Later" feature on Kindle and the Appstore for Android; however, items added from one device were not viewable on the other devices on our account. **Google's** wish list was shared between our devices. [Q6]

<sup>5</sup> [http://tiny/1edxgpgsc/coming\\_soon](http://tiny/1edxgpgsc/coming_soon)  
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### III. Detail Page

We evaluated information surfaced on app store detail pages across the web and devices. We looked at the level and consistency of developer information, release notes, social gaming indicators, product descriptions, images, videos, and customer reviews. **Google** and **Apple** provided more full and consistent app data including: complete version history (**Apple**), clearer permissions (**Google**), install count and trend (**Google**), and social gaming indication (**Apple**).

#### ► Observations:

- 25) **Amazon** did not display an app's last update date on any platform, while **Apple** and **Google** both displayed this. [Q3]
- 26) **Apple** displayed the complete history of an app's update release notes. **Amazon** generally only displayed release notes from the most-recent update. [Q3]
- 27) **Amazon** did not display release notes for an app's recent update on Kindle/Appstore for Android. **Google** and **Apple** both displayed this information on devices. [Q3]
- 28) **Amazon** did not identify games that were GameCircle enabled on GameCircle games detail pages. **Apple** displayed the Game Center logo on detail pages for games that were Game Center enabled. [Q3]
- 29) **Amazon** Appstore on-device detail pages did not link to additional selection within an app's category or display sales rank, and as such, did not link to best sellers.

#### Detail Page Consistency with other Kindle Fire Stores

We evaluated the consistency of detail pages across the various storefronts on the Kindle Fire.

#### ► Observations:

- 30) **Amazon** Appstore detail pages on the Kindle Fire scrolled the entire page, moving the buy button off the screen as we scrolled. This behavior occurred on both detail pages and review pages within the Appstore. Other Kindle stores, such as Books, did not exhibit this behavior. Instead, while scrolling content in the right frame, the left frame remained static and the buy button always remained visible. [Q3]

#### Customer Ratings and Reviews

We evaluated the customer review submission and display functionality both on devices and on the web. We found that **Apple** and **Google** customer reviews provided a better evaluation experience as we could view reviews specifically for the current version of an app or from users of our specific device. This was particularly useful given the regular incremental updates and bug fixes made to apps and the vast array of phone and tablet models. We found that **Amazon's** reviews lacked these filters, which led to older reviews which may no longer be accurate surfacing predominately (as witnessed by a "most helpful" review of the WatchESPN app, claiming it was incompatible with the Kindle Fire).

#### ► Observations:

- 31) **Apple** and **Google** provided mechanisms to filter reviews by version and/or device, **Amazon** lacked similar filters. [Q4]
- 32) **Google's** reviews included an indication of the reviewer's version and device; **Amazon's** lacked this information. [Q4]
- 33) No marketplace provided app ratings trend information (similar to Yelp). [Q4]
- 34) **Amazon's** on-device reviews from the Amazon Vine program were missing the Vine Voice tag (of all digital stores on Kindle, only eBooks displayed this tag). Amazon.com help page stated: "A review written as part of the Vine™ Voice program always includes this label". [Q4]
- 35) **Amazon's** on-device Appstore did not provide the ability to search within reviews, **Amazon's** website did. [Q4]
- 36) **Amazon's** on-device Appstore did not provide the ability to filter by stars, while eBooks, Newsstand, MP3, and Audiobooks all had this functionality on Kindle. [Q4]
- 37) **Amazon** did not allow customers to rate an app without also writing a 20-character or longer review. **Apple** and **Google** allowed customers to simply select a star rating. [Q4]



#### IV. Purchase Experience

We evaluated the purchase experience from both the web and on devices. Apps purchased from the **Google** Play website downloaded and installed immediately to the device specified at time of purchase. Apps purchased on one **Apple** device were immediately installed on our additional devices. Apps purchased from **Amazon's** website required manual intervention to download and install on our Kindle.

##### ► Observations:

- 38) After purchasing apps from the web, **Amazon** website messaging directed us to "Go to Apps > Cloud to see your purchased app to download and install." We went to this location; however, our app was not visible. An additional step was needed to manually sync our Kindle or we would wait an unknown amount of time for the app to appear in our cloud. We experienced many instances of having to wait multiple hours for purchased apps to automatically appear in our cloud. [R1]
- 39) When purchasing from **Google** Play's website we were prompted to select from our registered devices to install to. Once our purchase was complete, the app began immediately downloading and installing to that device. **Amazon** had no such feature. [R1]
- 40) **Apple** had a setting on devices that allowed users to turn on/off automatic downloads for music, apps, and books. When turned on, any app purchased on the same iTunes account from another device or computer would automatically download and install on our device. [R1]
- 41) We received individual **Amazon** order confirmation e-mails for all app purchases, including free apps. **Google** and **Apple** only sent confirmations for paid apps. **Apple** batched confirmations for multiple purchases in one e-mail. [Q5]
- 42) **Amazon** Digital Services, Inc. was listed as the seller of record on detail pages and order confirmations. **Apple** and **Google** both listed the developer as the seller. We were therefore charged sales tax on all of our **Amazon** purchases. Despite **Apple** listing developers as sellers of record, we were charged taxes on all iTunes app purchases; taxes varied by developer on our **Google** purchases. [Q5]

#### V. Gifting and Social

We evaluated gifting and social capabilities related to the app stores (not within apps themselves). Specifically, we looked at how and where we could share and how we could gift content from app stores. We found that **Amazon** did not support gifting of apps and had limited social capabilities from devices.

##### ► Observations:

- 43) **Amazon** did not support gifting of apps; **Apple** did. **Amazon** did support gifting of MP3s and Kindle books. [Q6]
- 44) **Apple** provided an "allowance" feature which allowed us to setup recurring credits to be applied to a specified iTunes account in amounts from \$10 to \$50 per month. **Amazon** had no such feature. [Q6]
- 45) **Apple** offered digital gifts via Facebook Gifts. We were unable to find similar gifting via Facebook from **Amazon**, **Google**, **Barnes & Noble**, or **Microsoft**. **Facebook** Gifts provided the ability to gift **Facebook** Games credit usable for in-app purchases directly from Facebook. **Amazon** did not offer any app-specific credit gifting.
- 46) **Amazon** Appstore on Kindle included a "share this app" link at the bottom of app detail pages. This only provided the ability to e-mail a link. **Amazon's** website provided links to share via Twitter, Facebook, and Pinterest. **Google** provided ability to share via all sharing methods (e.g., e-mail, social) installed on our device. [Q6]
- 47) During in-store visits to physical retailers as part of our Kindle Accessories benchmarking program, we visited two GameStop locations (one in Seattle, one in Anaheim) and observed **Google** Play and **iTunes** Appstore Gift Cards available for purchase on display near the tablet section. There were no **Amazon** Gift Cards for sale. At a Seattle RadioShack location, there were **iTunes** Gift Cards hanging on the hooks of every open (out of stock) merchandising slot in the store. Also, at Starbucks locations, we noted that **Apple** now includes apps in their "Pick of the Week" promotions. [Q6]

#### VI. Post-Install

We evaluated functionality available after apps had been installed on our devices including: notifications, viewing and managing updates, and uninstalling apps. We found that **Google** provided the most robust app management features.

##### ► Observations:

- 48) **Google** Play provided the ability to update, delete, or install our cloud apps to a specified device via the web. **Amazon's** website did not provide visibility to which apps were installed on which devices, nor did it provide the ability to delete from or install a cloud app to a specified device. [R1]

- 49) **Apple** had the most robust notification management, allowing us to individually manage whether an app can send notifications or not, as well as what type of alert, if it is visible on the lock screen, and how many notifications to display from a given app. **Amazon's** Kindle provided simple on/off notification management on an app-by-app basis.
- 50) **Google's** on-device app update notifications included the title of the apps with updates (e.g., "Spotify. 1 New Update"). **Amazon's** notification simply stated "New App Updates Available. 1 update available." [Q7]
- 51) Both the **Amazon** Appstore for Android App and the Kindle Fire Appstore required the most steps to locate the app update page (4). The fewest steps were **Google** Play (web: 1, Nexus 7: 2). On the Kindle Fire, there was no menu option to check for updates from the default view of the "Apps" tab (our library), we had to first access the "Store" section. [Q7]
- 52) **Apple** App updates on the iPad and iPhone were displayed in the App Store with the new version number, the update date and a summary of changes contained in the update. **Amazon** did not provide this information. [Q7]
- 53) In addition to allowing all apps to auto-update, **Google** Play provided the ability to specify specific apps to auto-update. **Amazon** only had an option for all or none, with no option to allow apps to auto-update on an app-by-app basis. [Q7]

## VII. Returns/Refunds

We evaluated return and refund processes available for each service, as well as contacting customer service to attempt refunds for purchases. **Google** was the only service with a return window that allowed us to return items for refunds without contacting customer service. We were able to secure refunds for purchases from all services with minimal effort by contacting customer service.

### ► Observations:

- 54) **Google** Play offered a 15-minute return window on app purchases. Apps could be returned directly from the device with no customer service interaction during this window. Returns of **Amazon** apps required a contact to customer service. [Q8]
- 55) Despite stated policies disallowing returns, we were able to return paid apps for refunds from **Google**, **Apple**, and **Amazon** by contacting their respective Customer Service departments.

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**US Amazon Appstore - Consumer Q1-13**

Business Owner Response

April 23, 2013

**amazon benchmarking**

Authors: Eric Schuler, Simon Lacasse

*For full findings, please refer to the main Benchmarking Study.***Recommendations***A selection of observations and responses from our studies will be included in a summary document periodically reviewed with the S-team.*

- R1. APP MANAGEMENT:** Amazon lacked the ability to manage apps from the website. Unlike Google Play, there was no method to specify a device to install to, push an app update, or remove an app from a specific device. Apps purchased from the web did not immediately appear on our Kindle Fire. We were required to manually sync or wait a number of hours and then manually download and install from the cloud.

**Recommendation:** Implement web-based app management to allow for installation, updates, and removals on a device-by-device basis.

**Response [David Lindheimer]:**

Action	Owner	Estimated Completion Date
[Installation] Deliver over-the-air installation to device from retail web purchases, enabling near real-time remote installation if the device is powered on and connected via WiFi. This is part of the auto-delivery BRD.	lindheim	Q3
[Updates] App updates is a P2 in the auto-delivery BRD.	lindheim	Not committed
[Removal] App deletion from web is a P2 in the auto-delivery BRD.	lindheim	Not committed

- R2. SELECTION:** Amazon was missing a selection of top apps from developers who had other offers on Amazon. For the top 200 free and top 200 paid apps on Google Play, Amazon had 61% coverage. 25% of Amazon's selection gap was apps from developers that had other offers on Amazon. Amazon's app versions (including apps from Amazon and subsidiaries) were often out of date and updates routinely trailed Google Play. Of the 53 popular apps we tracked across Google Play and Amazon, 43 had updates available on Google before Amazon, 21 remained out-of-date at the conclusion of the study.

**Recommendation:** Work with app developers and on internal processes to understand and remove roadblocks to securing full selection and providing app updates in a manner consistent with that of Google Play.

**Response [Steve Rabuchin]:**

Selection is our highest priority in 2013. We are adding significant new resources and focus to developer outreach in order to recruit the top ~5000 or so apps that matter most to customers as measured in the Google Play and Apple Appstore (top apps). The plan outlined below was rolled out within the Appstore on Friday, May 17. More specifically we are doing the following:

1. Create one team under Kes focused on driving selection. We have already moved a few heads under Kes so he now owns all heads that manage developers or work on selection (currently 21 BIS, including Kes).
2. Add more heads and align the team against more app categories. Each category team will manically focus on the categories they own to be best in class. They would get all the apps that matter to their category and we would measure DWC by category. New org would look like:
  - a. Games Team (manager + 14)
  - b. Book, Publishing and Education (manager +3)
  - c. Finance, Business and Productivity (manager +5)
  - d. Entertainment and Music (manager +4)
  - e. Sports, Health and Fitness (manager +2)
  - f. Lifestyle (manager +7)
  - g. Team of 8 L4 phone reps that call down developers in higher deciles of DWC (if this works we might scale it quickly)

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- h. Team lead on B (works across the org to ensure B selection)
  - i. Team lead on E (works across the org to ensure E selection)
3. Each category team will hunt and farm new selection. For example, we will have a larger games team. More senior folks will each own 10 to 15 of the largest named developers (i.e. EA and Disney), less senior folks will own ~50 or so key developers, and phone reps will call into the list of 1000s of developers that represent important DWC apps, but that we never touch today. This is somewhat similar to how AWS sales are organized (enterprise reps, mid-market named and mid-market territory reps).
  4. We will pragmatically move all unrelated selection responsibilities off of the team so they can focus primarily on driving all selection goals (new selection, version parity, adoption of APIs, penetration of existing developer catalogs, etc.). Activities that we will move off of this team are co-op funding goals, customer support issues, developer support issues, merchandising and marketing, and weekly reporting. I have already identified homes for most of the non-selection work I have mentioned here.
  5. Create a new team (5 heads) to help run the operations of the selection team (implementing systems, BI, reporting, DWC calculations, prospecting lists, etc.). This work is currently very manual and done by folks who should be getting more selection.
  6. Overall we will create an atmosphere of high energy, be goal focused, and celebrate our wins loudly!

As part of this new org direction we are adding 11 more incremental (L4 and L5) heads. Breakdown is below:

Total team required for new plan	56 heads
Currently in budget on Kes's team	31 heads (21 BIS + 10 to hire)
Moving Steve's int'l open heads to US	14 heads
Incremental add (Approved)	<u>11 heads</u>

- R3. MERCHANDISING:** Amazon's Appstore lacked any merchandised experience or editorial feel in all categories, except for games. Apple's app store had consistent, highly-merchandised landing pages for every category.

**Recommendation:** Improve Appstore merchandising to have a consistent feel across all top-level categories, similar to Games.

**Response [Alex Rouse]:** From a technology perspective, we plan to add dedicated merchandising pages for categories that drive 80% of demand weighted coverage (DWC) on Generation 6 devices in Q4'13. To manage these placements actively worldwide (i.e. in an editorial versus automated manner), it is likely the team will require additional site merchandising bandwidth worldwide (the team is currently assessing headcount requirements).

**Questions and Answers****Q1. SELECTION [Steve Rabuchin]:**

- a. What is our approach to filling selection gaps for developers who are not currently on the platform? Why do we not offer any Google apps? Why did we not have The Masters or the NCAA March Madness Live app?

*Context: Out of the 157 missing apps from Google's top 200 paid and top 200 free, Amazon was missing 116 apps from developers with no presence on amazon.com. Included in these apps were all Google apps, Instagram, WhatsApp Messenger, Groupon, Firefox, and PayPal. We also noted live sporting event streaming apps for the NCAA tournament and The Masters were missing.*

See answer in R2 of this document for how we plan to fill selection gaps for developers not currently on the platform.

We are still pursuing Instagram, but since becoming part of Facebook those negotiations are tied to higher level strategic discussions. The Instagram team hasn't prioritized Kindle Fire development yet. We do not offer the Google apps because we've been unable to reach an agreement with Google to offer those apps. We've made a strategic decision not to offer Groupon, Paypal, and Firefox on Kindle Fire and have therefore not targeted them in our developer outreach. The Masters did not prioritize us for development for Android this year but are on their roadmap for Masters next year. We reached out too late on the NCAA March Madness but are currently in discussions to be included in their roadmap for next year's tournament.

- b. Why were some apps available only on Kindle Fire? Do we have plans to support multiple versions of the same app (Kindle-optimized/tablet/phone)? Should the detail page messaging be updated for Kindle-only apps?

*Context: Approximately 3,500 apps in the Amazon Appstore were offered as "Kindle Tablet Edition" exclusively. These apps were not available for installation on non-fire devices. To install on other devices we owned beyond our Fire, we had to purchase again from Google Play. Amazon.com website availability messaging noted apps were available instantly on "your Android device."*

There are approximately 56k apps in the Kindle Fire store and approximately 82K apps in our Android store. Some developers choose to only publish in our Kindle Fire store (and optimize for Kindle Fire) so you won't necessarily see all Kindle Fire apps in the Android store. Developers have a choice to publish their app in both stores but some have chosen not to publish to our Android store. At least one reason we have heard for this gap is that developers want us to support full multi-binary support for Android apps (ability to optimize their apps for all the different Android devices). This work is currently on our roadmap for 2013.

- c. Why did we experience degraded app quality on selected racing games compared to Google Play and Apple?

*Context: We experienced lower-quality versions of some racing games compared to Play/Nexus and iTunes/iPad (NFS Most Wanted, Asphalt 7: Heat). Riptide GP's default graphics setting on our Kindle Fire HD was lower than our Galaxy Tab 7 (both installed via Amazon Appstore).*

Our devices were designed with cost in mind. Relative to our competitors our tablets are less capable in the areas of chipset/performance and memory. Apps that require more powerful hardware sometimes don't perform as well when ported from Android (other tablets) to Kindle Fire.

- d. Do we have minimum app quality standards? How do we filter out low-quality apps? Do we monitor customer reviews, CS contacts, refunds, etc.? Do we have internal developer metrics similar to internal seller ratings? Are we utilizing any algorithms to penalize low-quality apps or lift high-quality apps in search/browse (similar to seasonality algorithms used in Softlines)?

*Context: We found many low-quality apps such as picture galleries or apps with names similar to popular apps.*

If an app passes through our self-service pipeline and is published we don't programmatically measure app quality standards once the app is live in the store. We use ratings and reviews from our customers to help identify quality, similar to Amazon.com. We usually only market and merchandise the more popular, higher quality apps. We do monitor top tier titles for poor customer reviews so that our vendor manager team and/or developer relations group can work with the developer to fix issues that might be causing their app/game to receive poor reviews (when we know the title is high quality or popular on other platforms).

During our Weekly Business Review we monitor refund rates and CS contacts. If there are issues with a specific app we quickly address to correct. CS also has an escalation path (and Andon Cord capability) to the business team if they identify an issue with any specific app or developer.

**Q2. DISCOVERY [David Lindheimer]:**

- a. Have we considered linking auto-complete to detail pages for exact matches?

*Context: Google returned results in auto-complete that linked directly to an app detail page.*

We have added this feature to our consumer experience feature backlog, however it is not currently committed for 2013.

- b. Have we considered enabling purchase directly from search/browse?

*Context: Both Apple and Google allowed us to purchase directly from search/browse.*

We previously enabled purchase from search, but it led to elevated customer service contacts because users were accidentally buying apps. We will consider placing the feature back on our backlog, but it is not currently calendared for 2013.

- c. Do we have any plans to enhance search filters, such as adding age/maturity filters and GameCircle refinements?  
*Context:* Amazon lacked the ability to filter by age/maturity. There was no refinement for GameCircle enabled games; instead they were all placed in one custom node on the web with no browse or refinements. On the Kindle, GameCircle games were a category within games instead of a refinement. Other Categories on the Kindle included Gamepad Enabled, Everyone, Everyone 10+, and Test Drive.  
 We have added these ideas to our backlog, however they are not currently committed for 2013.
- d. Have we considered enhancing our use of personalized recommendations to surface recommendation reasons, and allow easy dismissal of specific recommendations?  
*Context:* There were no personalized recommendations on the Kindle beyond a single widget on the Appstore homepage and the carousel on the Kindle homepage. Google's recommendations felt more personalized as they indicated the specific reason for the recommendation and provided a clear means to dismiss a specific recommendation.  
 Yes, the goal of our "personalized Appstore" initiative is to deliver significantly more personalized recommendations with a compelling but unintrusive UI. Certain aspects will be delivered in H2/2013.
- e. Should we provide recommendations or other relevant results in place of empty results on the Kindle Fire?  
*Context:* Null result searches resulted in a blank page on Kindle Fire.  
 Yes, we will explore the surface area for exposing recommendations as part of the personalized Appstore initiative (delivering in 2H'13).
- f. Why does Amazon have a Ringtones and a Web Browsers node on the Kindle Appstore?  
*Context:* Kindle Appstore had a Ringtones and a Web Browsers node. Kindle has no phone, and there are no alternate web browsers available for Kindle, so these nodes are unnecessary and potentially confusing.  
 On device, these should not be displayed – we will correct this bug in May 2013. On web, we do not adjust the experience based on user's device.

### Q3. DETAIL PAGE [Alex Rouse]:

- a. Should we provide a more complete history of release notes for each app, including date of last update? Should Kindle display the release notes present on amazon.com?  
*Context:* Amazon's website displays release notes for an app's most recent update ("What's New"). Kindle/devices do not display any release notes. Apple displays a full history of changes for all previous versions of an app.  
 Yes, we are planning to add release notes to the detail page on Gen 6 tablets in Q3'13.
- b. Have we considered implementing developer badges or other developer-level rating systems?  
*Context:* Google surfaces a "Top Developer" badge for certain developers on app detail pages and in search/browse.  
 Yes, we're launching a program called "Kindle Developer Select" (Q3'13) which will be a badge for developers who meet the program criteria.
- c. Have we considered adding a GameCircle indicator on GameCircle-enabled app detail pages?  
*Context:* Apple shows a Game Center icon on Game Center enabled app detail pages. Amazon makes no mention of GameCircle features on detail pages.  
 Yes, this feature is included in the tablet 2.3 release in Q2'13.
- d. Should the Kindle App Store detail page behave more like other Kindle store detail pages?  
*Context:* For the Kindle Appstore detail pages, scrolling the screen moves the buy button off the screen. This is different than the behavior of every other on-device store on Kindle.  
 Yes, in Gen6 Tablets, we have designed the Appstore detail page to be as consistent with device conventions, unless there is a strong reason to deviate. We do not currently have plans to update the Gen5 tablets to match.

### Q4. CUSTOMER RATINGS AND REVIEWS [David Lindheimer]:

- a. Should we implement the ability to filter reviews by version and device?  
*Context:* Google provided the ability to filter reviews by device and current app version only.  
 Yes, this is on our backlog, but not currently committed for 2013.
- b. Have we considered implementing a ratings trend over time?  
*Context:* Apps are frequently updated by developers. Amazon currently has no method to filter customer reviews by version. A trend over time (similar to Yelp ratings) may arm customers with additional context when evaluating an app.  
 Yes, this is on our backlog, but not currently committed for 2013.
- c. Why are app reviews on the Kindle and other devices missing the Vine Voice tag?  
*Context:* Amazon.com help states: "A review written as part of the Vine™ Voice program always includes this label", yet this tag is missing from app reviews on Kindle and other devices.  
 Apps are not currently part of the Vine program. We will add this feature when we incorporate apps into Vine.
- d. Should we provide the ability to search within reviews from devices?  
*Context:* Amazon's website provided the ability to search within reviews; Amazon's on-device appstores did not.  
 We have added this feature to our backlog, but it is not currently committed for 2013.

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- e. Should the Kindle Appstore reviews implementation be consistent with other Amazon stores on the Fire?

*Context: Each digital store on the Kindle has a different reviews implementation. Apps did not allow us to filter reviews by star rating, other Kindle stores did.*

We have added this work to our backlog, but it is not currently committed for 2013.

- f. Should we allow for simple star ratings in addition to 20-word minimum reviews?

*Context: Google and Apple allowed us to simply rate an app by stars; Amazon required a minimum 20-word review.*

No, we believe that requiring minimum review text increases the quality and value of customer reviews. This approach is recommended by the Amazon reviews team. As part of the personalized Appstore initiative, we will also consider inclusion of a Netflix-style quick rating system to enhance our ability to serve personalized recommendations.

#### Q5. PURCHASE EXPERIENCE [David Lindheimer/Ryan McCrate]:

- a. Have we considered eliminating or batching e-mail order confirmations for free apps?

*Context: Apple and Google only sent e-mail confirmations for paid apps; Apple batched multiple purchases in a single e-mail confirmations.*

Yes, we have considered aggregating orders, including eliminating emails for free apps. To date, we have chosen to stay consistent with Amazon retail practices and to ensure device owners are aware of all purchases (including in-app purchases) in real time.

- b. Why have we chosen ADSI as the seller of record for apps?

*Context: Apple and Google both listed the developer as the seller of record for third-party developed apps.*

The primary reason is to allow us to control customer pricing for the apps and in-app products in our store (e.g., to enable us to run promotions and discounts without developer involvement).

#### Q6. GIFTING AND SOCIAL [David Lindheimer]:

- a. Why are apps not giftable? Have we considered recurring credit gifting for digital goods (via Coins perhaps)?

*Context: Other digital products on Amazon were giftable; apps were not, despite showing up in our wish list. Apple allowed for gifting of apps and provided an allowance feature that could be set to send a set amount of iTunes credit on a specific frequency.*

We plan to offer allowances via Amazon Coins in 2013/Q4. Gifting of apps is in our backlog, but not currently committed for 2013.

- b. Should "Save for Later" sync across devices?

*Context: Apps added to our "Save for Later" list were only added on the specific device we added them from. Google Play's synced across devices.*

We plan to remove the "Save for Later" feature from devices (starting with Generation 6 devices) as it has lower user engagement and low relevance for low-priced apps.

- c. Should we consider selling Appstore-branded physical gift cards or running app promotions in retail outlets?

*Context: We found Google and iTunes App Store branded gift cards in retail outlets. Apple's free "App Pick of the Week" cards were distributed in Starbucks stores.*

With the launch of Kindle Fire (1<sup>st</sup> Generation), we launched an "Amazon Digital" gift card in both physical and digital form, with the belief that an ecosystem-wide message was more powerful and more consistent with the positioning of the Fire device. We still believe that to be true and don't plan to launch an Appstore specific gift card in 2013.

- d. Should we offer more sharing options from app detail pages on Kindle Fire?

*Context: Kindle Fire only allowed sharing of apps from detail page via e-mail.*

Yes, this is part of the personalized Appstore proposal for H2/2013.

#### Q7. POST-INSTALL [Alex Rouse] :

- a. Should we reduce the number of steps to access app updates?

*Context: Amazon required the most steps (4) to reach the app update screen. There was no way to check for app updates from our App Library on Kindle, we had to first access the Store. Google required 2 steps on device.*

We have not considered this but can add it to our backlog. Given our auto-updating feature, we believe this is a low priority change (not currently calendared for 2013).

- b. Should we include version release notes in app update notifications?

*Context: Apple showed release notes on their app update screens.*

Yes, this is scheduled for implementation with Generation 6 Tablets (but not currently committed in 2013 for backfill to earlier devices).

- c. Have we considered allowing apps to auto-update on an app-by-app basis?

*Context: Google provided this as an option at the time of app install and in the app settings. Amazon had an all-or-none approach to allowing auto-updates.*

We believe that our current approach is a simpler experience for customers.

- d. Have we considered including the app name in the update notification message?

*Context: Google included the name of the app(s) with updates in notification; Amazon simply stated "X updates available."*

We have not considered this but will add it to our backlog (not currently committed for 2013).

**Q8. RETURNS/REFUNDS [David Lindheimer]:**

- a. Should Amazon offer a return window?

*Context: Google had a 15-minute return window that allowed us to uninstall an app for a full refund within 15 minutes with no CS interaction. Amazon required CS contacts to obtain a refund for an app.*

We considered this but decided not to offer refunds for two reasons. First, it is not currently possible to determine whether a customer actually received an in-app purchase item on their device. Allowing refunds would open us and our developers up to significant fraud risk. Second, allowing refunds on apps would set precedent that could extend back to Amazon's other digital categories that do not currently accept refunds by policy. In practice, Amazon Customer Service has the flexibility to offer customers refunds in all Amazon digital categories, based on their judgment in dealing with specific customer contacts.

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**amazon benchmarking tenets**

- Amazon has a Divine Discontentment culture – relentlessly seek out companies providing superior Consumer, Seller and Developer customer experience to compare against.
- Measure top customer experience drivers, such as delivery speed, selection, in-stock availability, price and latency; ensure we test inputs we think we're good at.
- Utilize simple methodologies that pass the voting machine test – correct and believed to be correct.
- Speed matters in our business:
  - Identify customer experience improvement opportunities before customers do.
  - We do not accept being #2 to relevant competitors – We advocate for customers and business leaders respond to customer shortcomings with a sense of urgency. If in doubt, competitors are relevant and customers care. Business responses to benchmarking recommendations will start with “We will fix this by” or “We will not fix this because.

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